

## **REMARKS**

### **I. Status of Claims**

This amendment is submitted in light of the final Office Action dated November 5, 2003 and subsequent Advisory Action dated February 4, 2004 in the parent application to advance the prosecution of this RCE filing. By this amendment claims 4 and 21 are cancelled. Claims 1, 3, 5-8, 10, 12, 13, 15, 17-20 and 22-24 are pending the application and have been variously amended to even more clearly distinguish over the art of record. Favorable consideration and prompt early allowance are respectfully requested.

### **II. Rejection under 35 U.S.C. § 102 in Parent Application**

The final Office Action dated November 5, 2003 in the parent application rejected claims 1, 3, 4, 6, 7, 8, 10, 12, 13, 20, 21, 23 and 24 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,269,401 to Fletcher *et al.* Claim 1 recites a method including “collecting at least performance monitoring data and capacity planning data” for a plurality of client machines. That is, as disclosed in applicants’ specification (see *e.g.* specification page 21, lines 6-8) and recited in claim 1, the invention encompasses the collection of at least two types of functionally distinct data.

As discussed “performance monitoring data” may be collected over relatively short intervals to monitor the real-time or near real-time health of a network, for example to detect and remedy immediate situations such as CPU utilization rates or other conditions over comparatively short times. See *e.g.* specification, page 19, lines 15-21. The claimed invention likewise recites collecting “capacity planning data”, which by and large is not concerned with frequent snapshots of network performance. Rather, and as

understood by persons in the art, “capacity planning data” is used in the discipline of network “capacity planning”, that is, the comparatively long-term assessment and planning of network infrastructure. While specific data fields which may be captured for performance monitoring purposes and capacity planning purposes may not be not strictly delineated and may occasionally be similar or even in instances the same, their sample frequency is not. Nor are their purposes or tools the same.

For example, capacity planning may involve the evaluation of projected long-term storage needs, to determine for instance the number of RAID installations that may be needed to be added to a network next year. A range of other infrastructure resources may be strategically planned using the tools of, and data derived for, capacity planning. As such, the discipline of capacity planning is in general not concerned with minute-to-minute fluctuations in network operation.

According to the invention claimed in claim 1 in another regard, not only may both the separate “performance monitoring data” and “capacity planning data” be collected in one method, but it may be collected in a particularly compact and efficient manner. More specifically, as recited in claim 1 at least the (generally shorter-term) “performance monitoring data” may be collected at a “first time interval”, after which collection the “performance monitoring data” may be “stor[ed]” ... in a cache” at each of those two or more client machines for a “selected interval”. That “selected interval” is recited as “being greater than the first time interval”. That is, samples of the “performance monitoring data” may be accumulated for a larger time span than their original sample frequency.

After that aggregation, the inventive method calls for “averaging” the cached performance monitoring data over the “selected interval”. The invention claimed in claim 1 therefore in one regard relates to a method in which multiple client machines capture running sets of performance monitoring data, and independently average the performance monitoring data which they separately collect. As recited the performance monitoring data may then be transmitted to a central storage location “at least as part of the capacity planning data”. Thus among other advantages, applicants’ invention permits the averaging or scaling of normally short-term performance data for effective use in longer-term capacity planning.

Fletcher does not identically disclose the method claimed in claim 1. Fletcher discloses a monitoring technique whose goal is to associate client failures and broader network faults, to permit an administrator to detect causes of related problems. See e.g. col. 26, lines 6-23. Fletcher however does not disclose “capacity planning” in any regard. Fletcher does not mention the term “capacity planning” nor imply structural resource planning on the scale of months or years, in any fashion. Rather, Fletcher is merely concerned with near-term network monitoring to identify downed servers or other immediate network faults. Fletcher thus and simply does not describe “collecting at least performance monitoring data capacity planning data”, as recited in claim 1.

Nor does Fletcher describe the “averaging” the “performance monitoring data” over a “selected time interval” defined to be “greater than the first interval” at which the performance data may be collected. Applicants note that Fletcher describes computing an “average” in his statistics table (550, Fig. 5). Applicants however observe that the “average” is not necessarily of “performance monitoring data” as recited, nor in any

event is that quantity computed “over the selected time interval”. Rather any average in Fletcher, whatever the input, is computed over a number of *samples* but not over time. Col. 8, lines 15-24. This is not the computation recited.

Fletcher furthermore certainly does not describe “transmitting at least the averaged performance monitoring data as at least a part of the capacity planning data to the central collection location”, as recited in claim 1. Fletcher does not describe averaging the performance monitoring data over time. Fletcher moreover as noted does not positively teach or even acknowledge the generation or use of “capacity planning data”. Fletcher therefore does not describe transmitting the “averaged performance monitoring data” as at least part of the “capacity planning data”, or any capacity planning data. That reference therefore can not and does not anticipate applicants’ method as claimed in claim 1. Claims 3, 6 and 7 distinguish over Fletcher for at least similar reasons to claim 1 from which they depend, as well as for the further limitations recited therein.

The final Office Action dated November 5, 2003 rejected claim 8 under 35 U.S.C. § 102(e) as being anticipated by Fletcher. Claim 8 recites one or more “computer-readable media having computer-executable instructions” which may be executed to collect “at least performance monitoring data and capacity planning data” at two or more client machines. As recited in that claim, collected performance monitoring data so collected may be “stored and averaged at each such respective client machine” over a “selected time interval”, that interval being “greater than the first time interval” at which the performance monitoring data is collected. Fletcher again fails to disclose the averaging of independently captured performance monitoring data, as recited. Fletcher

certainly does not describe “transmitting at least the averaged performance monitoring data as at least part of the capacity planning data”, as recited in claim 8. Lacking description of those and other recited features, Fletcher is not adequate to support the rejection of claim 8 under 35 U.S.C. § 102(e) and that rejection is overcome. Claims 20 and 22-24 distinguish over Fletcher for at least similar reasons to claim 8 from which they depend, as well as for the further limitations recited therein.

The final Office Action dated November 5, 2003 rejected claim 10 under 35 U.S.C. § 102(e) as also being anticipated by Fletcher. Claim 10 recites one or more “computer-readable media having computer-executable components”, those components including “client collection components” to collect at least “performance monitoring data and capacity planning data” at two or more client machines. As recited in the claim, the components likewise include “averaging components” which may operate so that at least the performance monitoring data may be “stored and averaged at each such respective client machine”. Fletcher again fails to disclose any distributed “averaging” operations on performance monitoring data over the “selected time interval” being “greater than the first time interval” of performance data collection, as recited.

Again the reference completely lacks a teaching of “transmission components for transmitting at least the averaged performance monitoring data as at least part of the capacity planning data” to a central collection location, as recited. Lacking description of these and other recited features, Fletcher is not adequate to support the rejection of claim 10 under 35 U.S.C. § 102(e) and that rejection is overcome. Claims 12 and 13 distinguish over Fletcher for similar reasons to claim 10 from which they depend, as well as for the further limitations recited therein.

Claim 15 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,453,346 to Garg et al. Garg merely discloses a network storage system which applies data reduction by taking periodic snapshots of the network at intervals and only recording changes in storage or other resources when necessary. Claim 15 in contrast recites one or more “computer-readable media having computer-executable modules”, those modules including “means for collecting at least performance monitoring data and capacity planning data”, “means for storing” that data and “means for separately averaging” at least the performance monitoring data. Garg is unconcerned with capacity planning in any regard. The reference consequently fails to disclose or suggest a set of means or other limitations to capture both disparate data types, and average at least the “performance monitoring data” over a “selected interval”, that interval being “greater than the first interval” at which the performance monitoring data is collected. Garg as much as Fletcher also certainly lacks a teaching of “means for transmitting at least the averaged performance monitoring data as at least part of the capacity planning data”, since in fact Garg is not directed to capacity planning itself. Lacking description of these and other recited features, Garg is not adequate to support the rejection of claim 15 under 35 U.S.C. § 102(e) and that rejection is overcome. Claims 17 and 18 distinguish over Garg for similar reasons to claim 15 from which they depend, as well as for the further limitations recited therein.

Claim 19 recites one or more “computer-readable media having stored thereon a data structure” comprising a data field containing “capacity planning data” which represents “averaged performance monitoring data collected over a period of time”, wherein the “the performance monitoring data” is converted into “capacity planning

data” before the data structure is transmitted to a central location for capacity planning purposes. Applicants respectfully recapitulate that Garg’s teaching of a “cognitive signature module 34” and related elements in no way relates to capacity planning as recited in the claimed invention. The claimed invention includes a recited data field encoding “capacity planning data”, that capacity planning data being converted from “performance monitoring data” before transmission to a central location. The “cognitive signature module 34” of Garg merely describes a behavioral model of network response time and other variables, to reflect for example usual peak demand times or other understood variations in network performance. See *e.g.* Col. 4, lines 38-61. There is no mention in Garg of projective or other “capacity planning” tools, data or functions as required by the claim. Garg certainly does not describe that captured “performance monitoring data” may be “converted” to “capacity planning data”, suitable for example to be used for those purposes. Lacking these and other features of the claimed invention, claim 19 distinguishes over Garg, Fletcher and the other art of record.

## **II. Rejection under 35 U.S.C. § 103(a)**


The final Office Action dated November 5, 2003 rejected claims 5 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Fletcher, with the “selected time interval” defined as at least “twice as long as the first time interval” being stated to be an obvious modification of Fletcher’s platform. Applicants respectfully submit that Fletcher fails to suggest the method or media recited in claims 5 and 22 as a whole, including the ability to “average” performance monitoring data and transmit “averaged performance monitoring data as at least part of the capacity planning data”. The invention claimed in claims 5 and 22 therefore also distinguishes over Fletcher and the other art of record.

**CONCLUSION**

Applicants have duly considered the final Office Action dated November 5, 2003 and ensuing Advisory Action dated February 4, 2004 in the parent application and amended the claims to even more clearly distinguish over Fletcher, Garg and the other art of record. For at least the reasons above, claims 1, 3, 5-8, 10, 12-13, 15 and 17-20 and 22-24 distinguish over that art and are in condition for allowance. Should however any issues remain before the issuance of this application, the Examiner is urged to contact the undersigned to promptly resolve the same. The Commissioner is hereby authorized to charge any additional amount required, or credit any overpayment, to Deposit Account No. 19-2112, referencing Attorney Docket No. MFCP.70155.

Respectfully submitted,

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